

#### ABSTRACT

A fluid measurement system includes a long focus optical system at a CCD camera, and an image processor for comparing particle images taken at two time points for analysis. The long focus optical system is provided with a shield which shields a part including a central portion of a main mirror at an arbitrary shield rate. As a result, the particle image of a tracer is enlarged with its contour kept clear, that is, in focus, and therefore, the image having a luminance which allows analysis by the PIV method can be taken in spite of use of the long focus optical system.